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Dimensions of Religious Tourism in Surabaya: A Netnographic Analysis of Online Tourist Reviews of Mosques and Pilgrimage Sites

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Abstract: *Rapid growth in Muslim-friendly tourism establishes Surabaya as a key urban religious tourism hub featuring diverse monumental mosques and saint pilgrimage sites. This study investigates tourist experiences and digital perceptions across four iconic religious destinations in Surabaya: Al-Akbar National Mosque, Muhammad Cheng Ho Mosque, Sunan Ampel Complex, and Sunan Bungkul Tomb. The primary novelty of this research resides in applying a pure netnographic method with a comparative multi-case design to Google Maps user reviews across varied religious site typologies—encompassing modern mosques, acculturated Sino-Islamic mosques, and classical tomb pilgrimage sites. This addresses an academic gap in literature previously dominated by Sharia hospitality and social media promotional evaluations. Analyzing 7,321 Google Maps reviews via computational netnography, findings reveal high visitor satisfaction, with 4–5 star ratings accounting for 95.36%, positive sentiment at 58.51%, and happiness emotion at 85.0%. Tourist evaluations are structured across five dimensions: spirituality, historical identity, physical aesthetics, accessibility/facilities, and socio-economic activities. Key operational bottlenecks include ablution/toilet sanitation, parking capacity, and aggressive begging. The study concludes with the necessity of Maqasid al-Shariah-based destination governance (hifdh ad-din, hifdh an-nafs, hifdh al-mal) through worship facility hygiene upgrades, informal vendor organization, and historical narrative digitization to sustain Surabaya's digital Muslim-friendly tourism reputation.*

INTRODUCTION

The global expansion of the Islamic economy and halal industry has positioned Indonesia as a strategic hub within the international arena (Alam et al., 2026; Sulaiman & Ab Talib, 2027)).

The halal industry has evolved beyond its traditional boundary of religious food labeling into a comprehensive Sharia lifestyle ecosystem (Safitri & Afandi, 2023). This ecosystem dynamically integrates six core interactive sectors: halal food, Islamic finance, Muslim-friendly tourism, modest fashion, Sharia-compliant media and recreation, and halal cosmetics and pharmaceuticals (Khasanah, 2020). From a macro-economic perspective, this transformation is evidenced by global Muslim consumer expenditure. (Putra Timur et al., n.d.; Timur et al., 2027; Timur, Wijaya, Kurniawan, et al., 2025) reported that international travel spending by Muslim consumers reached USD 217 billion in 2023, representing a 43.2% year-on-year increase, and is projected to expand to USD 384 billion by 2028 with a compound annual growth rate (CAGR) of 12.1%. These metrics demonstrate that travel tailored to Muslim preferences represents a rapidly expanding segment within the global Islamic economic landscape (Alam et al., 2026; Timur, Wijaya, Hilmi, et al., 2025) According to Global Islamic Economy Indicator metrics, global Muslim consumption across these sectors continues to accelerate, with Indonesia ranking among the top nations in domestic Sharia consumption volume (Safitri & Afandi, 2023). Furthermore, the national mandatory halal certification policy, bolstered by the Free Halal Certification (Sertifikasi Halal Gratis) program administered by the Halal Product Assurance Organizing Agency (BPJPH), reinforces Indonesia's strategic commitment to establishing itself as a global hub for the halal industry(Unsiyah et al., 2026; Ridlwan et al., 2026; Sari et al., 2026).

Among the foundational pillars of the halal industry, the Muslim-friendly tourism sector generates substantial monetary and socio-economic contributions (Bawafie et al., 2024; Timur, Ridlwan, et al., 2025) In Islamic tradition, travel is conceptualized as *rihlah*—a physical movement across the Earth driven not merely by worldly recreation, but mediated by spiritual reflection (*tadabbur*), exploration of Islamic civilization history, and faith enhancement (Madyan et.al, 2015). Recent literature indicates that Muslim tourist requirements extend beyond halal food consumption to encompass the availability of appropriate facilities, service environments, and experiences aligned with religious obligations (Bawafie et al., 2024; Putra Timur et al., n.d.) In Indonesia, Islamic-themed religious tourism and pilgrimage destinations serve as major attractions for both domestic and international travelers (Bawafie et al., 2024; Susilowati et al., 2026) East Java Province occupies a pivotal role as a global Muslim travel destination, given that approximately 97% of its total population adheres to Islam (Rahman et al., 2023) . As the provincial capital, Surabaya serves as the epicenter of urban religious tourism in Indonesia, distinguished from other tourist cities by its diverse array of attractions—ranging from monumental places of worship to classic pilgrimage sites honoring Islamic saints (*walis*).

The multidimensional character of religious tourism in Surabaya is iconically embodied by four key destinations featuring distinct architectural, historical, and socio-economic profiles: Al-Akbar National (Azizah, 2020) Mosque, Muhammad Cheng Ho Mosque, Sunan Ampel Mosque and Tomb Complex, and the Sunan Bungkul Tomb at Bungkul Park. First, Al-Akbar National Mosque represents modern, large-scale mosque tourism, spanning 11.2 hectares with a multi-thousand congregation capacity; its regular religious lectures, sermons, and periodic events generate tangible economic benefits for surrounding semi-formal street vendor associations. Second, Muhammad Cheng Ho Mosque presents a unique hybrid Sino-Islamic architectural aesthetic initiated by the Indonesian Chinese Islamic Association (PITI) and supported by pluralist leader KH Abdurrahman Wahid (Gus Dur) (Rahmatullah et al., 2025) , reflecting tolerance, multiculturalism, and inclusive proselytization (da'wah) in an urban setting. Third, the Sunan Ampel Mosque and Tomb Complex offers a legendary 15th-century spiritual pilgrimage site dedicated to Raden Rahmat (Sunan Ampel), combining ancient Javanese-Arabic architecture

with direct economic impacts, such as a 44% income increase for front-market traders (Madyan et.al, 2015) Fourth, the Sunan Bungkul Tomb (Ki Ageng Supo)(Syahrial, 2024) , located in the urban core behind Bungkul Park Wonokromo, presents a striking sacred-profane spatial contrast within an active modern public park, anchored by a historic well whose water source never depletes.

Despite the significant potential of these four religious destinations, the practical integration of halal industry standards, facility management, and urban social order in Surabaya encounters complex operational constraints. User reviews on digital platforms and urban field reports reveal recurring visitor complaints regarding historical sites like the Ampel area and Sunan Bungkul Tomb, specifically addressing traffic congestion, chaotic street vending, unsanitary ablution/toilet facilities, and social disturbances from aggressive street beggars. Conversely, modern mosque destinations such as Al-Akbar and Cheng Ho face operational bottlenecks centered on parking management during major Islamic holidays and indoor thermal comfort maintenance. This fragmented governance and disparity in visitor satisfaction underscore the need for an evaluative approach capable of systematically mapping authentic tourist experiences to inform policy recommendations grounded in *Maqasid al-Shariah* (Unsiyah et al., 2026)

In the digital era, conventional tourism satisfaction research relying on structured surveys or face-to-face interviews is increasingly vulnerable to response bias and field sampling limitations (Azhar, 2026; Kodaş, 2024; Noor et al., 2025) Conversely, digital tourism growth has driven a behavioral shift among urban tourists, who extensively share experiences, praises, complaints, and emotional expressions online via User-Generated Content (UGC) on platforms like Google Maps/Places (Khasanah, 2020) . These organic digital reviews reflect unvarnished tourist experiences, embodying the theoretical paradigm 'Community is the Message' (Evelina & Di, 2018) . This digital interaction landscape can be empirically investigated using netnography (virtual ethnography)—an interpretive qualitative methodology that adapts traditional ethnographic techniques to analyze consumer cultural behavior within computer-mediated communication (Khasanah, 2020) Algorithmic platforms further amplify these digital reviews, constructing religious legitimacy and shaping destination image within the virtual sphere (Handayani et al., 2026)

An analysis of existing literature reveals a distinct academic lacuna: netnographic studies in halal tourism remain largely restricted to Sharia hospitality sub-sectors (Alam et al., 2026) or macro-level evaluations of national promotional campaigns on Instagram(Swandewi et al., 2024). To date, no comparative multi-case netnographic study has systematically investigated Google Maps user reviews across diverse religious sites—comprising modern mosques, acculturated Sino-Islamic mosques, and classical tomb pilgrimage sites—in a strategic port city such as Surabaya. The primary novelty of this study lies in applying pure netnography to comparative digital review datasets across Surabaya's four iconic religious destinations. Theoretically, this research enriches cyber-based urban Islamic economics literature; practically, it offers actionable insights for the Surabaya Culture and Tourism Office and site management boards to design integrated, sustainable Muslim-friendly destination governance.

RQ1: What dominant topics emerge from tourist reviews of religious destinations in Surabaya, as identified through BERTopic-based topic modeling?

RQ2: What sentiment patterns are expressed in tourist reviews across religious destinations in Surabaya, as revealed by sentiment analysis?

RQ3: How are key concepts interconnected within and across sentiment categories in tourist

reviews of religious destinations in Surabaya, as unveiled through Textual Network Analysis (TNA)?

RQ4: How do topics, sentiments, and visitor attention regarding religious destinations in Surabaya evolve over time, as identified through trend analysis?

RQ5: How can findings from topic modeling, sentiment analysis, textual network analysis, and trend analysis be synthesized through netnographic interpretation to understand visitor experiences, perceptions, and temporal shifts in Surabaya religious tourism?

LITERATURE REVIEW

Halal Industry and Muslim-Friendly Tourism

The halal industry has undergone a paradigm shift, transitioning from a narrow religious compliance concept into a global lifestyle ecosystem encompassing the entire business value chain—from product inception, packaging, and distribution to final consumption (Safitri & Afandi, 2023; Rahmawati et al., 2025). The term halal denotes anything permissible under Islamic law and is intrinsically tied to the principle of *tayyib* (wholesome, hygienic, healthy, and high quality) (Alam et al., 2026; Sulaiman & Ab Talib, 2027) This dual principle serves to safeguard human well-being across both physical and spiritual (Safitri & Afandi, 2023) Within Islamic economics, the halal industry comprises seven core sectors: halal food, Islamic finance, Muslim-friendly tourism, modest fashion, Muslim-friendly media and recreation, halal pharmaceuticals, and halal cosmetics (Susilowati et al., 2023, 2026) Demand for halal products continues to rise across both Muslim-majority and Muslim-minority nations, driven by the perception that halal standards guarantee quality, safety, sanitation, and ethical production practices (Safitri & Afandi, 2023; Timur et al., 2023a) . In Indonesia, strengthening the halal ecosystem through mandatory halal certification and enhanced halal literacy forms an integral strategy for empowering micro, small, and medium enterprises (MSMEs), fortifying national economic resilience, and positioning Indonesia as a global halal production (Efendi & Khomairoh, 2024; Timur et al., 2023b)

Muslim-friendly tourism represents a strategic growth sector within the broader halal industry, referring to recreational travel services that cater to Muslim tourist preferences, enabling travelers to fulfill religious obligations while traveling (Rahman et al., 2023; Timur et al., 2023c) Operationalizing this concept requires certified halal food and beverage availability, suitable prayer facilities, clean water access for ablution (wudu), alcohol- and gambling-free environments, and privacy and security provisions aligned with Islamic moral ethics (Rahman et al., 2023; Timur et al., 2023d). Although designed for Muslim needs, Muslim-friendly tourism possesses universal appeal due to its emphasis on service ethics, hygiene, sanitation, and environmental sustainability, which enhance comfort for non-Muslim travelers as well (Rahman et al., 2023; Timur, Battour, et al., 2023) Furthermore, the integration of information and communication technologies (ICT) plays a vital role in marketing Muslim-friendly destinations, expanding their market reach across global tourism networks (Rahman et al., 2023; Timur et al., 2024a).

Religious Tourism and Pilgrimage Culture in Indonesia

From an Islamic perspective, travel is regarded as an act of worship (*ibadah*) termed *rihlah* (Madyan et.al, 2015; Timur et al., 2024) Scriptural mandates encouraging travel across the Earth are explicitly conveyed in the Qur'an, notably in Surah Ali 'Imran [3]: 137 and Surah Quraysh

[106]: 1–2. Such journeys are undertaken with pure spiritual intent to contemplate divine creation, derive moral lessons (ibrah) from historical civilizations, and deepen spiritual conviction and devotion to Allah SWT(Madyan et.al, 2015; Timur et al., 2024) Contemporary religious tourism represents a conceptual evolution of traditional rihlah, blending physical recreation with spiritual fulfillment. Visiting historical monuments, mosques, and sacred tombs allows travelers to reflect on faith, alleviate urban routine stress, and restore socio-spiritual balance (Rahman et al., 2023; Timur et al., 2025a).

In Indonesia, saint veneration pilgrimage (*ziyarah*) to the tombs of Islamic saints (*walis*) constitutes a cornerstone of Nusantara Islamic culture, practiced continuously by traditional Muslim communities, particularly across Java. In the sociology of Islamic proselytization, tomb visitation is categorized into Sharia-compliant pilgrimage (*ziyarah shar'iyyah*) and non-compliant pilgrimage (ziyarah bid'iyyah). *Ziyarah shar'iyyah* aims to remember mortality and supplicate for divine forgiveness for the deceased, whereas *ziyarah bid'iyyah* involves grave worship or directly requesting intercession from deceased saints, which is classified as polytheism (*shirk*) (Sari et al., 2025) Visitor motivations for tomb pilgrimages stem from both intrinsic and extrinsic factors. Intrinsic motives include seeking inner peace, spiritual devotion, and honoring the saint's historical proselytization legacy (Timur et al., 2027) Extrinsic motives encompass social environmental influences, family vows (*nadzr*), and mass religious group participation. Socio-culturally, tomb pilgrimages connect diverse demographic groups, foster Islamic brotherhood (*ukhuwwah Islamiyyah*), and stimulate local community-based micro-economies (Timur, Ridlwan, et al., 2025)

Mosque tourism similarly holds a strategic position within global halal tourism. Beyond serving as congregational prayer spaces, mosques function as tourism assets showcasing cultural heritage, architectural beauty, and Islamic historical education. Historically, traditional mosques symbolized communal unity, local cultural fusion, hybrid ornamental aesthetics, and proselytization history. In tourism studies, visitor evaluations of mosque destinations span two primary dimensions: aesthetic-architectural and spiritual-operational. The aesthetic-architectural dimension involves appreciating physical structures, domes, calligraphic artwork, and heritage value. The spiritual-operational dimension encompasses congregational prayer regularity, ablution facility quality, indoor thermal comfort, and management cleanliness. Effective physical site management and informative promotional mixes are essential for sustaining visitor loyalty and satisfaction.

Netnography Methodology and Digital Communication Landscape

Computer-Mediated Communication (CMC) theory explains social interaction, cultural formation, and message dissemination across digital networks (Evelina & Di, 2018) . Virtual interaction within cyberspace is characterized by being aspatial (removing geographical proximity requirements) and asynchronous (allowing flexible time frames for sending and receiving messages) (Timur, Ratnasari, et al., 2023) Furthermore, digital interaction promotes social status equality, empowering users across economic strata to voice reviews and emotions (Wati Evelina & Di, 2018) Within this framework, netnography—pioneered by Robert V. Kozinets—is an ethnographic qualitative method specifically adapted to investigate virtual community behavior, communication, and culture (Khasanah, 2020; Swandewi et al., 2024). Netnography utilizes online archival data, such as review texts, forum discussions, and star ratings voluntarily shared by netizens as authentic representations of field experiences (Wati Evelina & Di, 2018). Cyber sentiment analysis within netnography classifies opinion tones into positive, neutral, and negative categories to objectively capture emotional expressions,

satisfaction levels, complaints, and user expectations (Swandewi et al., 2024). Through inductive coding, researchers develop grounded theoretical propositions rooted in unvarnished consumer voices, free from conventional interview biases (Swandewi et al., 2024)

The evolution of digital technology has transformed tourist information-seeking behavior, shifting reliance from conventional promotional media toward User-Generated Content (UGC) on review platforms (Evelina & Di, 2018) -generated travel information carries higher perceived credibility and transparency, fostering electronic Word of Mouth (eWOM) that heavily influences global revisit intentions (Evelina & Di, 2018). In cyberspace, collective community opinions act as trusted authorities shaping destination reputation, encapsulating the paradigm 'Community is the Message'—wherein Google Maps or TripAdvisor ratings possess real power to build or diminish destination image (Evelina & Di, 2018; Timur et al., 2027)

In the digital era, halal destination legitimacy is no longer established solely by physical certificates, but is actively constructed and disseminated online (Handayani et al., 2026) . The concept of Algorithmic Halal Visibility explains how review texts, metadata, hashtags, and images detailing culinary halal assurance, worship cleanliness, and Muslim-friendly hospitality are amplified by platform algorithms (Handayani et al., 2026) . Frequent positive reviews confirming Sharia-compliant attributes increase a destination's search result visibility, bestowing social and religious legitimacy while stimulating local halal business ecosystem growth (Handayani et al., 2026).

Overview of Research Destinations in Surabaya

Surabaya offers a diverse landscape of Islamic religious tourism, encompassing mosques, pilgrimage sites, and Islamic heritage destinations that reflect the city's historical, religious, and multicultural development. This study focuses on four prominent destinations: Al-Akbar National Mosque Surabaya, Muhammad Cheng Ho Mosque, the Sunan Ampel Religious Tourism Area, and Sunan Bungkul Tomb. Each represents a distinctive dimension of Islamic religious tourism, ranging from monumental mosque tourism and cross-cultural Islamic heritage to traditional pilgrimage and sacred spaces embedded within the modern urban environment. Together, these destinations provide a diverse setting for understanding how visitors experience and perceive Islamic religious tourism in Surabaya.

Among these destinations, Al-Akbar National Mosque Surabaya (MAS) represents the development of contemporary monumental Islamic architecture in the city. Established in 1995 and inaugurated in 2000, the mosque is located in Pagesangan and is recognized as one of Indonesia's largest national mosques. Covering approximately 11.2 hectares, the complex is distinguished by its blue-green elliptical domes, 99-meter minaret, botanical gardens, and various religious activities. Beyond its religious function, the mosque also contributes to the surrounding local economy by creating opportunities for street vendors and micro, small, and medium enterprises (MSMEs).

While Al-Akbar Mosque reflects contemporary Islamic architecture, Muhammad Cheng Ho Mosque Surabaya represents the multicultural dimension of the city's Islamic heritage. Established in 2002 by the Indonesian Chinese Islamic Association (PITI) in honor of Admiral Cheng Ho, the mosque combines Islamic and Chinese architectural traditions. Its pagoda-inspired design and distinctive red, green, and yellow elements illustrate the interaction between Chinese cultural identity and Islamic religious expression. Consequently, the mosque has become an important representation of intercultural dialogue, religious tolerance, and architectural acculturation in Surabaya.

A more traditional form of pilgrimage tourism can be observed in the Sunan Ampel

Religious Tourism Area, which is centered around the Great Ampel Mosque and the tomb of Raden Rahmat, widely known as Sunan Ampel, a prominent fifteenth-century Walisongo figure. The area attracts pilgrims and religious visitors while simultaneously functioning as a vibrant center of local economic activity. Religious tourism in the area supports various businesses associated with Arab–Nusantara culinary products, souvenirs, Islamic clothing, and other pilgrimage-related goods, demonstrating the close relationship between religious mobility and local micro-economic development (Madyan et al., 2015).

Another distinctive form of religious tourism is represented by the Sunan Bungkul Tomb, located within Bungkul Park on Raya Darmo Street. The site contains the tomb associated with Ki Ageng Supo (Syekh Mahmudin), who is regarded in local tradition as an early Islamic preacher in Surabaya. Unlike conventional pilgrimage destinations that are spatially separated from everyday urban activities, Sunan Bungkul Tomb is situated within one of Surabaya's prominent public parks. This setting creates a distinctive intersection between sacred and contemporary urban spaces, where religious practices such as *tahlil* and prayer coexist with recreational and social activities. Collectively, these four destinations illustrate the diversity of Islamic religious tourism in Surabaya and provide contrasting contexts for examining visitors' experiences across religious, cultural, historical, and urban settings.

METHOD

Research Design

This study employs a netnographic approach coupled with computational text analysis to examine visitor experiences across religious tourism destinations in Surabaya based on Google Maps user reviews. Netnography was selected because online reviews constitute naturally occurring digital narratives through which visitors organically articulate their post-visit experiences, evaluations, expectations, and grievances (Khasanah, 2020; Swandewi et al., 2024). Computational text analysis complements this qualitative framework by systematically extracting linguistic, semantic, evaluative, affective, and temporal patterns from the review corpus. Subsequently, computational outputs are contextually interpreted through qualitative re-examination of raw user narratives, ensuring that visitor experiences are not overly reduced to isolated keywords, topic clusters, or numerical sentiment scores.

Data Sources and Data Collection

The empirical data for this study comprise publicly accessible user reviews retrieved from Google Maps for four iconic religious tourism destinations in Surabaya: Al-Akbar National Mosque Surabaya, Muhammad Cheng Ho Mosque Surabaya, the Sunan Ampel Mosque and Tomb Complex, and the Sunan Bungkul Tomb. These four destinations were selected using purposive sampling to capture distinct typology profiles of urban religious tourism in Surabaya. Specifically, they encompass a large-scale modern national mosque, a Sino-Islamic acculturated mosque, a historic Walisongo pilgrimage complex, and a sacred tomb embedded within a modern urban public park. Examining multiple destination types enables this research to encompass the heterogeneous visitor experiences within Surabaya's religious tourism ecosystem.

Google Maps was selected as the primary data source because it hosts unsolicited consumer evaluations in the form of textual reviews, star ratings, and associated metadata. These data uncover organic visitor experiences and priorities unconstrained by pre-formulated research instruments. Each review entry was treated as a distinct digital data unit. Following data screening and filtering, the final corpus comprised 7,321 valid user reviews, distributed across the

four sites as follows:

Table 1: *Distribution of User Reviews Across Religious Tourism Destinations in Surabaya*

No.	Religious Tourism Destination	Number of Reviews (n	Percentage (%)
1	Al-Akbar National Mosque Surabaya	2,450	33.46
2	Muhammad Cheng Ho Mosque Surabaya	2,305	31.48
3	Sunan Ampel Complex	2,472	33.76
4	Sunan Bungkul Tomb	94	1.28

The extracted dataset includes review timestamps, star ratings, destination identifiers, textual content, attached photo counts, user contribution counts, and relevant platform metadata. Variations in review volume across destinations were systematically accounted for during analytical interpretation to avoid biases stemming solely from absolute numerical disparities.

Data Preparation and Preprocessing

Prior to empirical analysis, the review dataset underwent rigorous cleaning and preprocessing to eliminate textual noise and ensure corpus consistency. This pipeline involved removing duplicate entries, filtering out empty or non-substantive reviews, standardizing text encodings, and categorizing data by destination site. Text normalization was subsequently performed for computational modeling, including lowercasing, punctuation handling, whitespace stripping, and non-text element removal. Domain-specific terms with nuanced religious or operational significance—such as terms referring to mosques, pilgrimage (*ziyarah*), worship facilities, cleanliness, accessibility, and Sharia tourism services—were carefully preserved. Following preprocessing, a clean corpus of 7,321 valid reviews was retained for downstream computational modeling and qualitative interpretation.

Data Analysis

The finalized corpus was analyzed using an integrated multi-method analytical workflow comprising word frequency analysis, BERTopic-based topic modeling, sentiment analysis, emotion classification, Textual Network Analysis (TNA), temporal trend analysis, and netnographic qualitative interpretation. Word frequency distributions and word clouds served as initial exploratory visualizations to identify prominent lexical items across reviews. Subsequently, BERTopic was deployed to cluster semantically proximate review vectors and uncover latent thematic constructs. Topic labeling and qualitative contextualization were performed by manually inspecting top-ranked representative words alongside underlying source reviews, rather than relying strictly on automated algorithmic keyword generation.

Sentiment analysis was executed to categorize reviews into positive, neutral, and negative polarity classes, thereby mapping overall visitor evaluative orientations. Discrete emotion analysis was applied to extract granular affective responses, specifically capturing happiness, sadness, anger, fear, and love. Furthermore, Textual Network Analysis (TNA) was utilized to construct co-occurrence networks illustrating semantic linkages among frequently co-occurring terms. Textual networks were constructed for the global corpus and disaggregated by sentiment category, enabling comparative evaluation of how key concepts, visitor experiences, and operational concerns interact across distinct sentiment polarities.

Temporal trend analysis was conducted to track longitudinal shifts in thematic topics, sentiment distributions, and visitor priorities across review timestamps. In the final phase, all

computational outputs were synthesized through netnographic qualitative interpretation by cross-referencing findings with raw user reviews corresponding to dominant topics, sentiment classes, emotional expressions, semantic network nodes, and temporal fluctuations. This methodological synthesis facilitated a contextualized explanation of positive visitor experiences, service bottlenecks, unfulfilled visitor expectations, and cross-destination experiential variances across Surabaya's religious tourism landscape. The overall research workflow sequentially encompasses data collection, cleaning and preprocessing, computational text analysis, and qualitative synthesis via netnographic interpretation.

RESULT AND DISCUSSION

Word Cloud Analysis

Word cloud analysis was conducted to provide an initial overview of the vocabulary most frequently used in Google Maps reviews of Islamic religious tourism destinations in Surabaya. As shown in Figure 1, "masjid" (mosque) is the most prominent word, indicating that mosques constitute the central element of visitors' religious tourism experiences. However, word frequency does not necessarily indicate positive or negative sentiment; therefore, the results should be interpreted alongside the original reviews and other analyses.



Figure 1: *Word Cloud Visualization of Prominent Keywords in Google Maps Reviews of Islamic Religious Tourism Destinations in Surabaya.*

Table 2: *Categorization and Dimension Analysis of Prominent Keywords Extracted from Google Maps Reviews*

Dimension Category	Key Terms (Indonesian Original)	English Translation & Contextual Meaning	Perceived Visitor Experience Impact
Spiritual Dimension	shalat, ibadah, beribadah, Islam, Allah, Alhamdulillah	Prayer, worship, perform worship, Islam, God, Praise be to God	Reflects sacred space perception, spiritual fulfillment, and religious devotion.
Place & Historical Identity	Surabaya, Ampel, Sunan, wisata, wali, ziarah	Surabaya, Ampel district, Sunan (Saint), tourism, saint, pilgrimage	Anchors site heritage, historical Islamic proselytization, and Nusantara pilgrimage tradition.

Physical & Environmental Quality	nyaman, bersih, luas, bagus, indah, adem, megah, arsitektur	Comfortable, clean, spacious, good, beautiful, cool, magnificent, architecture	Shapes satisfaction with physical comfort, cleanliness, spatial capacity, and visual aesthetics.
Facilities & Accessibility	parkir, jalan, fasilitas, toilet, air, kurang, kecil	Parking, road/access, facilities, restroom, water, insufficient, small	Highlights operational support infrastructure and flags service/capacity limitations.
Socio-Economic Activity	kuliner, makanan, ramai, pengunjung, jamaah	Culinary, food, crowded/lively, visitors, congregation	Highlights commercial vibrancy, local MSME trade, and social gathering dynamics.

The prominence of “Surabaya,” “Ampel,” “Sunan,” “wisata” (tourism), “wali,” and “ziarah” (pilgrimage) reflects the close relationship between place identity, Islamic history, and pilgrimage traditions. Meanwhile, words such as “shalat,” “ibadah,” “beribadah,” “Islam,” “Allah,” and “Alhamdulillah” reveal the spiritual dimension of visitors’ experiences. These expressions suggest that the destinations are perceived not merely as tourist attractions but also as sacred spaces for worship, reflection, and spiritual fulfilment.

Words such as “nyaman” (comfortable), “bersih” (clean), “luas” (spacious), “bagus” (good), “indah” (beautiful), “adem” (cool), “megah” (magnificent), and “arsitektur” (architecture) indicate that physical conditions and environmental quality substantially shape visitors’ evaluations. The occurrence of “parkir,” “jalan,” “fasilitas,” “toilet,” and “air” also demonstrates the importance of accessibility and supporting facilities. Although less prominent, words such as “kurang” (insufficient) and “kecil” (small) may indicate service or facility limitations that require further examination through the original reviews.

The appearance of “kuliner,” “makanan,” “ramai,” “pengunjung,” and “jamaah” further highlights the social and economic dimensions of religious tourism. Overall, the word cloud suggests that visitors’ experiences are shaped by three interconnected dimensions: spiritual experience, physical and service quality, and surrounding socio-economic activities. Therefore, the management of religious tourism in Surabaya should preserve its spiritual and historical values while improving cleanliness, comfort, accessibility, worship facilities, and the organisation of commercial activities surrounding the destinations.

Temporal Trends in Visitor Reviews

Figure 2 presents the monthly distribution of Google Maps reviews for Islamic religious tourism destinations in Surabaya. Review activity initially remained low but gradually increased before rising substantially between late 2018 and early 2020. The highest point occurred in May 2019, with approximately 282 reviews, representing the strongest concentration of online engagement in the dataset.

A sharp decline appeared in 2020, coinciding with the COVID-19 pandemic and the implementation of mobility restrictions, physical-distancing measures, and temporary limitations on religious and tourism activities. These conditions likely reduced visits to mosques and pilgrimage sites, thereby decreasing the number of visitor experiences recorded on Google Maps.

This pattern indicates the vulnerability of religious tourism to public-health crises and travel restrictions.

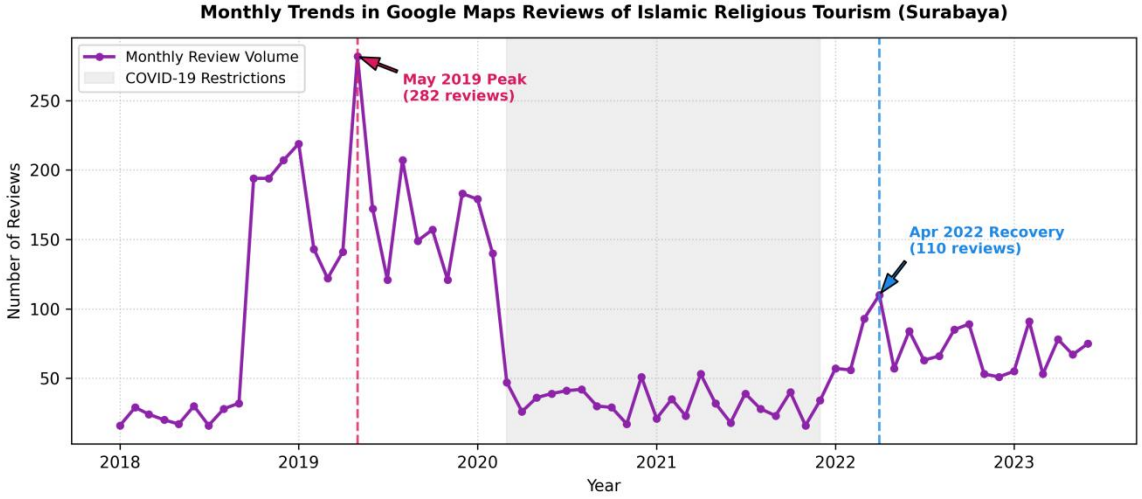


Figure 2: *Monthly Trends in Google Maps Reviews of Islamic Religious Tourism Destinations in Surabaya.*

Table 3: *Key Temporal Phases and Significant Milestones in Google Maps Review Data (2018–2023)*

Timeline Phase	Observed Review Volume Trend	Dominant External Factors / Events	Netnographic Significance
Pre-2018 Baseline	Low & Stable Volume (< 50 reviews/month)	Initial adoption of Google Maps review platforms by domestic tourists	Reflects early digital footprint of religious site visitors in Surabaya.
Late 2018 – Early 2020	Massive Surge (Peak: May 2019 at 282 reviews)	Rapid expansion of mobile internet, digital eWOM, and pre-pandemic tourism boom	Highest concentration of user engagement and online review activity.
2020 – Late 2021	Sharp Contraction (< 55 reviews/month)	COVID-19 pandemic, Large-Scale Social Restrictions (PSBB), site closures	Demonstrates vulnerability of physical pilgrimage sites to health crises.
Early 2022 – 2023	Partial Rebound (Peak: April 2022 at 110 reviews)	Post-pandemic restriction relaxation, resumption of religious travel (Ramadhan/Eid)	Signals gradual recovery of religious tourism eWOM and site visitation.

Review activity subsequently recovered, with another notable increase around April 2022, reaching approximately 110 reviews. This rebound may reflect the gradual relaxation of mobility restrictions and the resumption of religious and tourism activities. Nevertheless, subsequent fluctuations remained below the May 2019 peak. From a netnographic perspective, these temporal spikes indicate periods of intensified online engagement. However, the figure represents the number of reviews rather than actual visitor arrivals. Moreover, “1 May 2019” is a monthly aggregation label; therefore, the finding should be reported as a peak in May 2019, rather than specifically on 1 May 2019.

Temporal Trends in Dominant Words

Figure 3 illustrates the temporal development of five prominent terms—"masjid" (mosque), "tempat" (place), "Surabaya," "nyaman" (comfortable), and "luas" (spacious)—normalised per 10,000 words. The normalisation allows comparisons across periods with different volumes of review text.

The word "masjid" became the most consistently dominant term from approximately 2018 onwards and generally increased after 2020. This pattern confirms that visitors primarily framed their experiences around the religious identity and function of the destinations. The word "tempat" also appeared consistently, indicating that reviewers frequently described the destinations as physical and experiential spaces. Meanwhile, "Surabaya" reflects the connection between these religious sites and the city's destination identity.

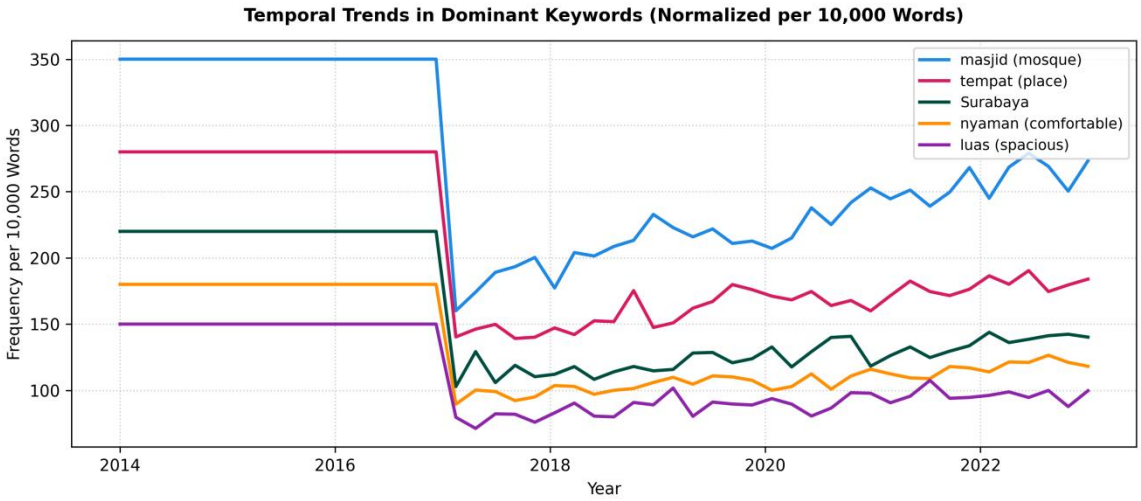


Figure 3: *Temporal Trends in Dominant Words in Google Maps Reviews (Normalized per 10,000 Words).*

The terms "nyaman" and "luas" fluctuated throughout the observation period but became relatively more stable in recent years. Their continued appearance suggests that comfort and spatial capacity remained important aspects of visitors' evaluations, alongside religious and historical significance. This is particularly relevant for mosques and pilgrimage sites that accommodate worshippers, tourists, and large religious gatherings.

The extremely high spikes observed between 2013 and 2016 should be interpreted cautiously. Because the values are calculated per 10,000 words, a small number of reviews containing repeated terms can produce disproportionately high rates. Therefore, these early peaks do not necessarily represent widespread changes in visitor perceptions. Overall, the more stable pattern after 2018 provides a more reliable indication that religious identity, place experience, comfort, and spaciousness consistently shaped online narratives about Islamic religious tourism in Surabaya.

Sentiment Analysis of Visitor Reviews

Sentiment analysis was conducted to identify the overall evaluative orientation expressed by visitors in their Google Maps reviews of Islamic religious tourism destinations in Surabaya. As presented in Figure 4, 4,284 reviews (58.51%) were classified as positive, 2,469 reviews (33.72%) as neutral, and 568 reviews (7.76%) as negative.

The dominance of positive sentiment indicates that visitors generally expressed favourable

experiences. When interpreted alongside the word cloud, these evaluations appear to be associated with cleanliness, comfort, spaciousness, architectural beauty, and the spiritual atmosphere of the destinations. The substantial proportion of neutral reviews suggests that many users provided brief, factual, or descriptive comments without expressing strong emotional evaluations.

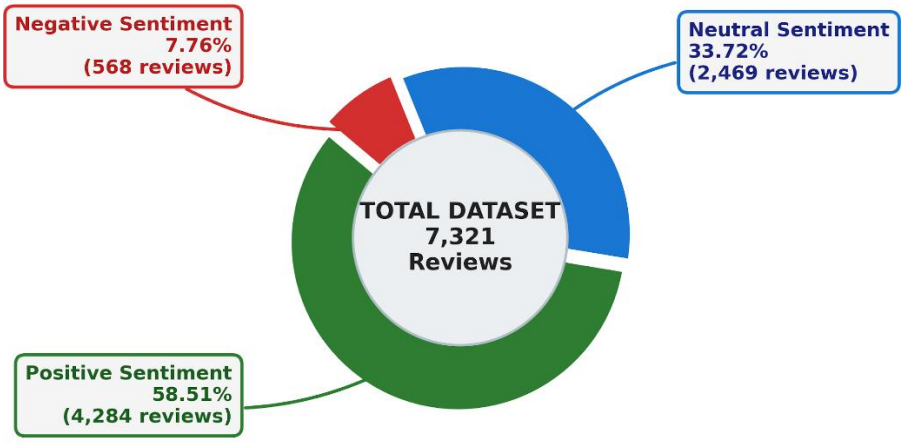


Figure 4: *Sentiment Distribution of Google Maps Reviews on Islamic Religious Tourism in Surabaya (N = 7,321).*

Although negative sentiment accounted for the smallest proportion, it remains important from a netnographic perspective because these reviews may reveal specific problems related to cleanliness, accessibility, parking, crowd management, or supporting facilities. Therefore, the overall positive assessment should not obscure the operational concerns expressed by a smaller group of visitors. Examining negative reviews in their original context can help destination managers identify areas requiring improvement.

Emotional Responses in Visitor Reviews

Emotion analysis was conducted to identify the specific affective responses expressed by visitors beyond the general positive, neutral, and negative sentiment classifications. As shown in Figure 5, happiness was overwhelmingly dominant, accounting for 6,224 reviews (85%). It was followed by sadness with 654 reviews (8.9%), fear with 233 reviews (3.2%), anger with 139 reviews (1.9%), and love with 71 reviews (1%).

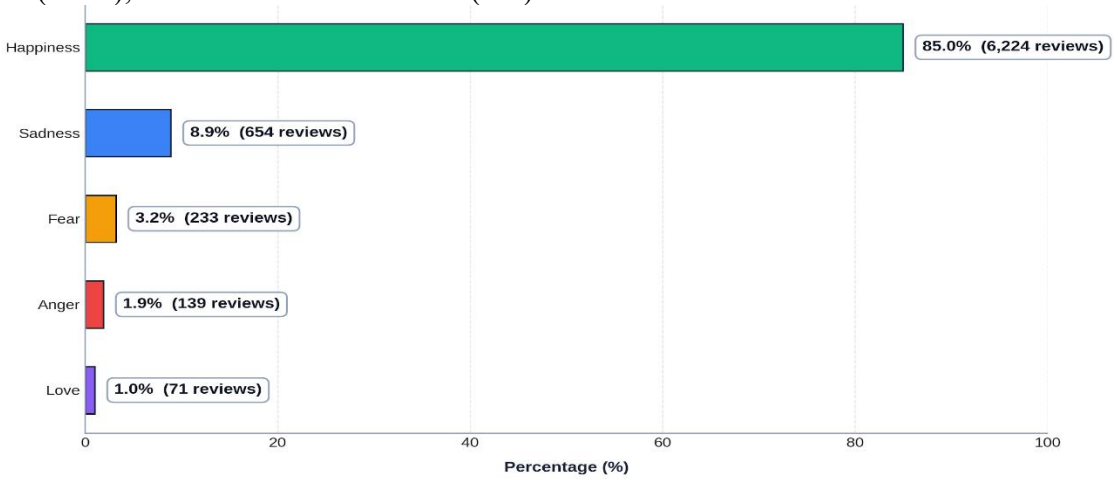


Figure 5: *Distribution of Emotional Responses in Google Maps Reviews of Islamic Religious Tourism Destinations*

in Surabaya.

The dominance of happiness reinforces the sentiment analysis, indicating that most visitors associated religious tourism in Surabaya with pleasant, comfortable, and spiritually meaningful experiences. These emotions may reflect satisfaction with the atmosphere, cleanliness, architecture, worship facilities, and opportunities for religious reflection.

Nevertheless, sadness, fear, and anger indicate that some visitors encountered less favourable experiences. These emotions may be associated with inadequate facilities, congestion, cleanliness problems, accessibility barriers, security concerns, or uncomfortable interactions. Although their proportions were relatively small, they remain important because they identify experiences that may require managerial attention.

The limited proportion of love should not be interpreted as a lack of emotional attachment, since the classification assigns reviews to distinct emotion categories and affectionate expressions may also be classified as happiness. Overall, the findings demonstrate that visitors' experiences were predominantly joyful, while a smaller set of negative emotions reveals areas for improving the quality and inclusiveness of religious tourism services.

Discussion

The netnographic analysis of 7,321 digital Google Maps reviews reveals that tourists' experiences of religious tourism in Surabaya are shaped multidimensionally by five main dimensions: spirituality, historical identity, physical/aesthetic quality, facilities/accessibility, and socio-economic activities. The dominance of positive sentiment (58.51%) and happiness (85%) demonstrates that most visitors experience spiritual satisfaction and environmental comfort during *rihlah* and *ziyarah* (Madyan et al., 2015; Rahman, 2023). These findings reinforce the concept of *halalan tayyiban*, in which the validity of religious rituals must be accompanied by the availability of clean, healthy, and adequate worship facilities (Safitri & Afandi, 2023; Unsiyah et al., 2026). Conversely, the emergence of negative sentiment (7.76%) is driven by operational bottlenecks, such as poorly functioning ablution taps, toilet cleanliness, limited parking areas, and disturbances to social order caused by beggars and street children along the entrance corridors to the destinations (Madyan et.al, 2015).

This study also identifies a dichotomy between modern/accul-turation mosque tourism (Al-Akbar Mosque and Cheng Ho Mosque) and traditional tomb-pilgrimage destinations (the Sunan Ampel area and Sunan Bungkul Tomb). Mosque visitors tend to evaluate architectural grandeur, spaciousness, the distinctiveness of Chinese-Islamic cultural hybridization, and family recreation. In contrast, tomb pilgrims focus on emotional and cultural ties, the solemnity of prayers for religious scholars/historical figures, and interactions with traditional markets selling food and souvenirs (Madyan et.al, 2015). Temporally, from 2018 to 2023, review volumes experienced a rapid post-pandemic rebound during Ramadan, which algorithmically produces algorithmic halal visibility and strengthens the digital reputation of Muslim-friendly tourism in Surabaya (Handayani et al., 2026; Loisa et al., 2021).

As a policy and managerial implication, this study recommends destination governance based on *Maqasid al-Shariah* (Unsiyah et al., 2026). The Surabaya City Government and destination management bodies should improve hygiene and sanitation standards for ablution areas and toilets (*hifdh ad-din* & *hifdh an-nafs*), organize street-vendor corridors and strengthen enforcement against aggressive begging (*hifdh al-mal*), implement traffic management measures

in parking areas, and integrate QR-code-based historical digitization with an integrated sharia tourism route package (One-Day Surabaya Religious Heritage Tour) (Hakim et al., 2023; Unsiyah et al., 2026).

CONCLUSION

This study concludes that tourists' perceptions and experiences of religious tourism destinations in Surabaya—consisting of Masjid Nasional Al-Akbar, Masjid Muhammad Cheng Ho, Sunan Ampel Area, and Sunan Bungkul Tomb—are formed multidimensionally through five main dimensions, namely spirituality, historical identity, physical quality and architectural aesthetics, the smoothness of supporting facilities, and the dynamics of local socio-economic activities. In general, public perceptions in the digital space are dominated by positive evaluations and a profound sense of happiness, reflecting the fulfillment of spiritual expectations and comfort in the worship environment during *rihlah* and *ziyarah*. These findings confirm that the success of religious tourism destinations rests on the principle of *halalan tayyiban*, in which the sanctity of religious ritual functions must be balanced with the quality of environmental amenities that are clean, safe, and representative. Conversely, visitors' negative perceptions are triggered by technical operational obstacles, such as suboptimal sanitation cleanliness in toilets and ablution areas, parking capacity constraints, and social-order disturbances caused by beggars and poorly organized street vendors along the entrance corridors.

The comparative analysis identifies a clear dichotomy in the characteristics and orientations of visitors between two typological groups of urban religious tourism destinations. In the modern mosque and cultural acculturation tourism group (Masjid Al-Akbar and Masjid Cheng Ho), tourists' evaluations center on appreciation of architectural visual beauty, spaciousness of worship areas, the uniqueness of the Chinese-Islamic cultural fusion as a symbol of inclusivity, and the comfort of educational family recreation. Meanwhile, in the classical tomb-pilgrimage tourism group (Sunan Ampel Area and Sunan Bungkul Tomb), visitors' motivations and perceptions are driven by strong emotional-historical ties, the solemnity of prayers for religious scholars and historical figures, and dynamic interactions with traditional culinary and souvenir markets. From a temporal and cybercommunication perspective, the circulation of digital reviews experienced a rapid post-pandemic recovery, particularly during the holy month of Ramadan, which algorithmically produces digital halal visibility (algorithmic halal visibility) while strengthening Surabaya's cyber reputation as a trusted Muslim-friendly destination.

As an implication of the study, the governance of religious tourism destinations in Surabaya requires an integrated approach based on the principles of *Maqasid al-Shariah* to maintain sustainable competitiveness. The Surabaya City Government together with destination management bodies are recommended to prioritize the standardization of adequacy and hygiene of sanitation facilities in ablution areas and toilets to ensure the protection of worship and visitor health (*hifdh ad-din* and *hifdh an-nafs*). In addition, the organization of street-vendor corridors, the enforcement of social order, and the arrangement of parking accessibility are necessary to create an ethical and conducive microeconomic transaction environment (*hifdh al-mal*). The development of QR-code-based digitalization of historical narratives and the integration of an integrated sharia tourism travel package route (One-Day Surabaya Religious Heritage Tour) constitute strategic steps to enrich cultural education for the younger generation while strengthening community economic empowerment based on urban religious tourism.

REFERENCES

Alam, A., Aprillia, A. A., & Nordin, N. (2026). The influence of halal gastronomy image on the intention of halal tourist destination visits: Religiosity and halal perception as a moderator. In *Journal of Global Tourism Research* (Vol. 11, Number 1).

Bawafie, A. A. A., Abdullah, M. W., & Haddade, A. W. (2024). Unlocking Creative Economic Development and Halal Tourism Through the Wisdom of Tepo Seliro. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, *16*(2). https://doi.org/10.15408/aiq.v16i2.43186

Efendi, M. N., & Khomairoh, S. (2024). Integration of Halal Industry with Religious Tourism Sector in Central Java. *Jurnal Pembangunan Daerah*, *1*(1), 55–74. https://doi.org/10.36762/jpd.v1i1.1211

Hakim, L., Muhajarah, K., & Walisongo Semarang, U. (2023). *Ar Rehla: Journal of Islamic Tourism, Halal Food, Islamic Traveling, and Creative Economy TRAVEL PATTERN WISATA RELIGI DI JAWA TENGAH*. *3*(1), 2776–7434. https://doi.org/10.21274

Handayani, D., Ilaina, R., & Wahyu Izzati Surya, Y. (2026). *CC BY-NC-SA 4.0. ALGORITHMIC HALAL VISIBILITY: PRODUCING RELIGIOUS LEGITIMACY IN DIGITAL STREET-FOOD PLATFORMS* (Number 1).

Khasanah, M. (2020). Peranan Media Sosial Sebagai Agen Sosialisasi Halal dalam Membangun Kesadaran Halal: Studi Netnografi. *Al-Tijary*, 139–157. https://doi.org/10.21093/at.v5i2.2116

Kodaş, D. (2024). Exploring the dimensions of traditional breakfast experience: A netnography study. *European Journal of Tourism Research*, *36*. https://doi.org/10.54055/ejtr.v36i.3136

Loisa, R., Candraningrum, D. A., Utami, L. S. S., & Irena, L. (2021). Cultural Participatory in Tourism Digital Marketing Communication Channel. *Jurnal Komunikasi*, *13*(2), 314. https://doi.org/10.24912/jk.v13i2.13411

Madyan et.al. (2015). *BISMA JURNAL BISNIS DAN MANAJEMEN*.

Noor, N., Tong, A., Zainol, Z., & Duong, D. T. T. (2025). Key attributes of mobile apps for halal tourism: an analysis of online reviews using Leximancer. *Journal of Islamic Accounting and Business Research*. https://doi.org/10.1108/JIABR-03-2025-0173

Putra Timur, Y., Muhammad Al-Kamal, A., Maulana, A., Hosfaikoni Hadi, N., & Permata Sari, D. (n.d.). *Navigating Muslim-Friendly Tourism in Japan: A Netnographic Analysis of User Experiences with Halal Travel Applications*.

Rahman, F. A., Sunan, N., & Surabaya, A. (2023). Ar Rehla: Journal of Islamic Tourism, Halal Food, Islamic Traveling, and Creative Economy ANALISIS PERKEMBANGAN WISATA HALAL DI JAWA TIMUR SEBAGAI TEMPAT DESTINASI MUSLIM GLOBAL. |, *56*(1), 2776–7434. https://doi.org/10.21274

Rahmatullah, M., Dzuki, M., Prayoga, S., & Romadhan, M. I. (2025). IKON BUDAYA SEBAGAI MEDIA MEMBANGUN REPUTASI WISATA: STUDI KASUS MASJID CHENG HOO SURABAYA. In *RELASI: Jurnal Penelitian Komunikasi* (Vol. 05, Number 02).

Safitri, A., & Afandi, M. Y. (2023). Trends of Halal Industry Research: A Bibliometric Analysis. *Jurnal Ekonomi Syariah Teori Dan Terapan*, *10*(6), 605–619. https://doi.org/10.20473/vol10iss20236pp605-619

Sari, D. P., Timur, Y. P., & Faza, F. T. (2025). Does Technology Drive the Intention of MSMEs in Urban & Rural Areas to Apply Halal Certification?: Integration of UTAUT & DeLone Mclean. *Paper Asia*, *41*(4), 254–266. https://doi.org/10.59953/paperasia.v41i4b.622

Sulaiman, N. Surilawana., & Ab Talib, M. Syazwan. (2027). *Sustaining the halal industry*

through Islamic science and technology integration. IGI Global Scientific Publishing.

Susilowati, F. D., Ridlwan, A. A., Fikriyah, K., & Timur, Y. P. (2023). Instagram Halal Cosmetics Reviews: Emotion Polarity and Presentation Modality Effects on Information Quality and Purchase Intention. *IQTISHODUNA: Jurnal Ekonomi Islam*, *12*(2), 471–486. https://doi.org/10.54471/iqtishoduna.v12i2.2610

Susilowati, F. D., Ridlwan, A. A., Timur, Y. P., Fikriyah, K., Mardhiyah, D., Ismail, A., & Rofiqo, A. (2026). How virtual reality can affect gen Z tourists' intention to visit halal tourism: a TAM-SOR approach. *Journal of Islamic Marketing*, *17*(7), 2352–2394. https://doi.org/10.1108/JIMA-05-2025-0309

Swandewi, N. K., Putu, G. A., Indrayani, W., Putu, N., Trisdayanti, E., Gede, P., Darmaputra, E., Made, N., Politeknik, T., & Bali, P. (2024). Lensa Netnografi: Analisis Sentimen Untuk Peningkatan Engagement Konten Promosi Pariwisata Melalui Film "The Last of Us 2." *Jurnal Ilmiah Pariwisata*, *29*(2), 186–200. https://doi.org/10.30647/jip.v29i2.1798

Timur, Y. P., Battour, M., Ratnasari, R. T., & Zulaikha, S. (2023). WHAT DRIVES CONSUMERS IN USING DIGITAL APPS TO VISIT HALAL TOURISM IN EAST JAVA? OPTIMIZATION STRATEGY FROM UTAUT2 PERSPECTIVE. *Jurnal Ekonomi Dan Bisnis Islam (Journal of Islamic Economics and Business)*, *9*(1), 190–215. https://doi.org/10.20473/jebis.v9i1.44569

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., & Jamilu, U. (2023). Investigating Netizen Sentiment Toward Halal Certification in Indonesia Using Machine Learning. *Jurnal Ekonomi Syariah Teori Dan Terapan*, *10*(6), 525–540. https://doi.org/10.20473/vol10iss20236pp525-540

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., Sari, D. P., & Rifqi, M. (2024). Factors Influencing Behavioral Intention to Apply Freemium Services in Islamic Lifestyle Digital Applications Using Unified Theory of Acceptance and Use of Technology (UTAUT). *Journal of Information Systems Engineering and Business Intelligence*, *10*(3), 340–354. https://doi.org/10.20473/jisebi.10.3.340-354

Timur, Y. P., Ridlwan, A. A., Suryaningsih, S. A., Fikriyah, K., Susilowati, F. D., & Rofiqo, A. (2025). Exploring tourist switching intention to halal tourism with the push-pull-mooring theory. *Journal of Islamic Marketing*, *16*(8), 2347–2371. https://doi.org/10.1108/JIMA-09-2024-0415

Timur, Y. P., Ridlwan, A. A., Susilowati, F. D., & Ismail, A. (2027). Mapping the evolution of halal certification in non-food sectors: A bibliometric and thematic review. *Multidisciplinary Reviews*, *10*(1). https://doi.org/10.31893/multirev.2027038

Timur, Y. P., Wijaya, M. W., Hilmi, A., Nizami, A. G., Sari, D. P., & Ahmad, M. I. (2025). Mapping Halal Tourism as Sustainable Tourism Through the Lens of the Triple Bottom Line: Insights and Lessons Learned from a Scopus-Based Bibliometric Review (2017-2024). *International Journal of Sustainable Development and Planning*, *20*(7), 2843–2857. https://doi.org/10.18280/ijsdp.200709

Timur, Y. P., Wijaya, M. W., Kurniawan, T., Ahmed, I., Sari, D. P., & Elfiana, D. E. (2025). A Bibliometric Analysis of Technology Empowerment in Halal Supply Chain: What Lessons Can Be Learned? *Paper Asia*, *41*(6), 514–539. https://doi.org/10.59953/paperasia.v41i6b.908

Unsiyah, N., Nasik, K., Musadad, A., & Nahidloh, S. (2026). Model Pengembangan Pariwisata Halal Berbasis Maqashid Syariah: Perspektif Hukum Islam dan Regulasi Kebijakan Pariwisata Indonesia Halal Tourism Development Model Based on Maqashid Shariah:

Islamic Law Perspective and Indonesian Tourism Policy Regulations. *Jurnal USM Law Review*, *9*. https://doi.org/10.26623/julr.v9i2.13635

Wati Evelina, L., & Di, A. (2018). *Komunitas adalah Pesan: Studi Netnografi Virtual di Situs Wisata TripAdvisor* (Vol. 01, Number 02).

Timur, Y. P., Battour, M., Ratnasari, R. T., & Zulaikha, S. (2023a). What Drives Consumers in Using Digital Apps To Visit Halal Tourism in East Java? Optimization Strategy From Utaut2 Perspective. *Jurnal Ekonomi Dan Bisnis Islam, 9*(1), 190–215. https://doi.org/10.20473/jebis.v9i1.44569

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., & Jamilu, U. (2023b). Investigating Netizen Sentiment Toward Halal Certification in Indonesia Using Machine Learning. *Jurnal Ekonomi Syariah Teori Dan Terapan, 10*(6), 525–540. https://doi.org/10.20473/vol10iss20236pp525-540

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., & Jamilu, U. (2023c). Public Perception of Amil Zakat Institutions in Indonesia: Insight Discovery From Machine Learning. *Jurnal Ekonomi Dan Bisnis Islam, 9*(2), 373–400. https://doi.org/10.20473/jebis.v9i2.45416

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., & Jamilu, U. (2023d). What Do Indonesian Netizens Think About e-Money? A Sentiment Analysis With Machine Learning. *Jurnal Riset Akuntansi Dan Bisnis Airlangga, 8*(1), 1452–1469. https://doi.org/10.21043/ziswaf.v10i1.20224

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., & Jamilu, U. (2023e). What Do Indonesian Netizens Think About Waqf? : a Sentiment Analysis With Machine Learning. *ZISWAF: Jurnal Zakat Dan Wakaf, 10*(1), 98–122. https://doi.org/DOI :10.21043/ziswaf.v10i1.20224

Timur, Y. P., Ratnasari, R. T., Pitchay, A. A., Sari, D. P., & Rifqi, M. (2024a). Factors Influencing Behavioral Intention to Apply Freemium Services in Islamic Lifestyle Digital Applications Using Unified Theory of Acceptance and Use of Technology (UTAUT). *Journal of Information Systems Engineering and Business Intelligence, 10*(3), 340–354. https://doi.org/10.20473/jisebi.10.3.340-354

Timur, Y. P., Ridlwan, A. A., Fikriyah, K., Susilowati, F. D., Canggih, C., & Nurafini, F. (2024b). How should Bank Syariah Indonesia respond to cyber-attacks ? Churn , sentiments , and emotions analysis with machine learning. *Journal of Islamic Economics Lariba, 10*(1), 439–470. https://doi.org/10.20885/jielariba.vol10.iss1.art24 How

Timur, Y. P., Ratnasari, R. T., Osman, I., & Sari, D. P. (2025a). Can the credibility dimensions of Islamic religious leaders (ULAMA) encourage MSMEs to apply for halal certificate? Evidence from Indonesia. *Journal of Islamic Accounting and Business Research*, 1–34. https://doi.org/10.1108/JIABR-04-2025-0240

Timur, Y. P., Ridlwan, A. A., Fikriyah, K., & Susilowati, F. D. (2025b). Two years of digital Sharia bank in Indonesia, what do consumers think?: A sentiment analysis using machine learning. *Multidisciplinary Science Journal, 7*(6), 2025273. https://doi.org/10.31893/multiscience.2025273

Timur, Y. P., Ridlwan, A. A., Suryaningsih, S. A., Fikriyah, K., Susilowati, F. D., & Rofiqo, A. (2025c). Exploring tourist switching intention to halal tourism with the push-pull-mooring theory. *Journal of Islamic Marketing, 16*(8), 2347–2371. https://doi.org/10.1108/JIMA-09-2024-0415

Timur, Y. P., Wijaya, M. W., Hilmi, A., Nizami, A. G., Sari, D. P., & Ahmad, M. I. (2025d). Mapping Halal Tourism as Sustainable Tourism Through the Lens of the Triple Bottom

Line : Insights and Lessons Learned from a Scopus-Based Bibliometric Review (2017-2024). *International Journal of Sustainable Development and Planning, 20*(7), 2843–2857. https://doi.org/10.18280/ijsdp.200709

Timur, Y. P., Wijaya, M. W., Kurniawan, T., Ahmed, I., & Sari, D. P. (2025e). A Bibliometric Analysis of Technology Empowerment in Halal Supply Chain : What Lessons Can Be Learned ? *COMPENDIUM by PaperASIA, 41*(6b), 514–539. https://doi.org/10.59953/paperasia.v41i6b.908

Timur, Y. P., Ridlwan, A. A., Susilowati, F. D., & Ismail, A. (2027). Mapping the evolution of halal certification in non- food sectors : A bibliometric and thematic review. https://doi.org/10.31893/multirev.2027038